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SMALL POX:
RESTRICTION AND PREVENTION.

ISSUED BY THE

Connecticut State Board of Health.

THIRD EDITION.

READ CAREFULLY AND PRESERVE FOR FUTURE REFERENCE.

COPIES OF THIS PAMPHLET MAY BE HAD ON APPLICATION
TO THE SECRETARY, NEW HAVEN, CONN.

*Vaccination is a public duty for the protection of the whole
community, as well as a private obligation for self-
preservation, which none have the right to neglect.*

New Haven, January, 1901.

PREVENTION AND RESTRICTION OF SMALL POX.

SMALL POX IS AN EXCEEDINGLY CONTAGIOUS DISEASE.—Its spread in a community is wholly by contagion.

Small Pox (variola) and varioloid are different names for the same disease. Varioloid is small pox in a modified form, less severe and rarely fatal. The modification may be caused by a previous attack of small pox or by vaccination—or may even occur spontaneously as in many instances during the last two or three years.

The contagion of varioloid is identically the same as that of small pox. It demands therefore the same precautions.

The contagion is conveyed from person to person, by actual contact, by infected clothing, by bedding, rags, paper, as in letters in envelopes, or from any infected things whatever.

The clothing of the patient, his bedding and all the articles in the room with him, become charged with the infection, and are under favorable conditions capable of retaining it in an active state for a long period, and of being the vehicles by which the contagion may be conveyed to persons elsewhere however distant.

SMALL POX IS A PREVENTABLE DISEASE.

NO INTELLIGENT PERSON NEED HAVE SMALL POX.—It is a fact of common knowledge that vaccination destroys the susceptibility to the contagion. The experience of an hundred years throughout the civilized world has proved the absolute protection against Small Pox, afforded by *thorough* vaccination, with *reliable* lymph, and repeated with *sufficient frequency*. The protection afforded by vaccination is not perpetual in all persons. Therefore revaccination should be practiced after a few years, especially if the disease is prevalent.

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A GENUINE VACCINATION in infancy and revaccination at the age of 12 or 14 will protect through life. The exceptions to this rule are exceedingly rare. There is no objection, however, to a subsequent vaccination as a means of additional safety, if one has been specially exposed or is liable to be.

Observe, the statement is made of "GENUINE VACCINATION." There are many spurious vaccinations. They are worse than none, because they give a false sense of security, and when they fail to afford the protection expected of them, they not only imperil the lives of the subjects, but bring an unjust odium upon the practice.

Trivial and simple as the operation appears, it nevertheless is one requiring skill and special knowledge to secure successful results. It is not only a foolish but a dangerous economy to entrust this responsible duty to nurses and midwives, or even to school teachers or ministers of the gospel. A person is usually capable of being vaccinated fully and successfully only ONCE in a life time. The revaccinations are almost always more or less modified, if the first was genuine. Hence it is of great importance that the first vaccination should be performed by a competent person well acquainted with the phenomena of the vaccine pustule, and the responsibilities of the act. The vaccine inflammation should always be inspected once or more during its progress.

It is a well established fact, that if the operation is properly performed, under right conditions, it is not followed by any bad results other than a temporary inconvenience.

Every infant should be vaccinated about three months after its birth, unless an educated and intelligent physician advises against it, temporarily.

No parent or guardian should permit a child to go to school until it has been successfully vaccinated.

CAN HAVE SMALL POX MORE THAN ONCE.

It is commonly believed that if a person has had small pox, it is impossible for him to have it again. Although this is generally true, there are many exceptions. But the second attack is usually milder than the first, and is called varioloid.

A genuine vaccination affords the same protection as an

attack of small pox. If a vaccinated person subsequently acquires the disease, it is almost always varioloid, and not fatal.

Vaccination is the surest and best means of escaping small pox.

DIAGNOSIS OF SMALL POX.

Some three or four years ago small pox appeared in the Southern States, and gradually spread to many of the Northern and Western States. The cases now have numbered many thousands. The most remarkable characteristic of this widespread epidemic is the mildness of its type. In this respect it is unprecedented in the experience of any living observer. Nor can there be found in all the mass of literature upon the subject any account of an epidemic of small pox in so mild a form, and so free from fatal results. Indeed in many places where it has prevailed the profession for a time have been divided in their diagnosis of chicken pox or small pox.

The typical features of small pox as described in the books, being wanting in so many instances, at once explains its rapid and general prevalence,, through mistaken diagnosis, and permits a danger of its further spread.

Another fact is contributory to that danger in Connecticut. Our State has been remarkably exempt from the disease. The rarity of its occurrence is such that probably a majority of the physicians under fifty years of age have never seen a case, and hence would not recognize one, in the atypical form in which it so often appears of late.

Every doctor should be suspicious now of any eruptive disease, having a prodromal period of two or three days of pain and fever.

To differentiate small pox from chicken pox, for which it is most frequently mistaken, the following quotation from Dr. W. M. Welch, of Philadelphia, may be of assistance:

"The onset of varicella is very different from that of variola. There is usually no distinct febrile stage preceding the eruption. Occasionally a rise of temperature precedes the cutaneous manifestation by a few hours, but far more frequently these two symptoms appear simultaneously. It is true, in many cases of extremely modified small pox, no reliable history of an initial

stage can be obtained, so that the diagnosis in such cases must be made from the appearance and behavior of the exanthem alone. It is important to bear in mind the following facts: That the lesions of variella make their appearance as distinct vesicles containing perfectly clear serum; that they are usually seen first on parts of the body which are covered with clothing, and especially on the back, where they are apt to be most abundant; that they make their appearance in successive crops, and may be seen in every stage of development; that they vary very greatly in size; that they are unilocular, and have an epidermic covering so delicate as to be readily broken by the finger nail; that they are rather soft and velvety to the touch; that many of them enlarge to a considerable circumference by peripheral extension, while others are as small as millet seed; that they are not umbilicated, except by desiccation beginning in their centers; that they run their course in the formation of crusts in two or four days; that the crusts are thin, brown and friable, and when they have fallen off, red instead of pigmented spots remain; and that but few of the lesions are followed by permanent scars.

By way of contrast I would say that the exanthem of small pox first appears in the form of papules, which are firm and dense to the touch, feeling somewhat like grains of sand buried in the skin; that they usually appear first on the face, and then on other parts of the body; that the papules slowly develop into vesicles with turbid or milky contents; that the vesicles in well marked cases are umbilicated; that they are multilocular, and have an epidermic covering so dense and firm as not to be easily broken by the finger nail; that the eruption prefers the exposed parts of the body, such as the face, hands and arms, being only sparsely seen on the trunk; that the vesicles are usually quite uniform in size; that they change into pustules; that the eruption requires in severe cases twelve or more days to pass through its various stages, while in extremely mild cases not more than five or six days are required; that the crusts which form are thick and very dark, and when they have fallen off there remain pigmented spots and more or less pitting.

While each group of symptoms just enumerated is descriptive respectively of chicken pox and small pox, and while there

should be no difficulty in differentiating between these diseases in any case in which either group is complete, yet it must be admitted that small pox sometimes occurs, as at present, in a form so atypical as to make it difficult to decide to which category the symptoms belong.

It may, however, be stated in a general way that a mildly febrile eruption appearing without prodromal symptoms, being distinctly vesicular from the beginning, and commencing to desiccate on the second or third day, should be regarded as chicken pox; and on the other hand, an acute exanthem preceded by an initial stage of 48 hours, in which the temperature was distinctively elevated, beginning as papules and ending in vesicles or vesicopustules, even though the period of evolution be short, should be regarded as small pox. At any rate it would be advisable to regard such a case as suspicious, and surround it with such precautionary measures as are best calculated to prevent the spread of infection."

PREVENTIVE PRECAUTIONS.

In every community there are always a few who are not protected by vaccination. They are mostly infants; yet there are too many unvaccinated adults, by reason of neglect, or an ignorant and unfounded prejudice.

For the protection of such it is desirable to prevent intercourse with the sick and to destroy the contagion of small pox which proceeds from the person of the patient.

This is effected by ISOLATION of the sick person;—that is by confining him or her to one place during the progress of the disease, and subjecting everything which has been in contact with him or in his presence to the action of agents which destroy the contagious principle, viz:—DISINFECTANTS.

THE SICK CHAMBER should be prepared by removing all unnecessary furniture. Especially carpets, curtains, table cloths, and all textile fabrics not needed for the comfort of the patient. Such as are necessary should be washable.

A room in the top of a house should be preferred, if it can be well ventilated and properly warmed, as being more remote from the other inmates of the house.

The door-way should be screened on the outside by a sheet hung across it moistened with a disinfectant solution.

The furniture, the floor, and all hard surfaces such as sills, shelves, etc., should be wiped every day or two with a three per cent. solution of carbolic acid, or chloride of lime, two per cent., or of corrosive sublimate (1:1000).

The room should be large—the bed placed so as to admit passing on both sides of it.

The attendants should be only so many as are needed for the care of the patient, and while in attendance should have as little intercourse with other people as possible, and that under prescribed restrictions.

THE MEANS OF DISINFECTION.

The most certain disinfectant is fire. Hence all articles of small or no value should be burned, in the room if practicable, in a stove, or better still in an open fire-place. Fire is infallible.

Articles of value which can be washed, such as bed clothes, soiled under-clothing, etc., should be immersed for two hours in a covered vessel by the bedside, before removal from the room, in a solution of carbolic acid, 3 parts; common soft soap, 2 parts; cold water 100 parts, after which they may be subjected to the usual processes of the laundry, namely, boiling, washing, airing and ironing. Garments of wool or silk, which would be injured by wetting, can be disinfected by exposure to dry heat at a temperature of 230° F. for two hours. This is not easily practicable except in a disinfecting oven constructed for the purpose.

But they may be exposed to the strong fumes of formaldehyde for six hours, without injury.

Mattresses, pillows and padded blankets, if much soiled by the discharges from the patient, cannot easily be disinfected except by fire, and had better be burned.

In nursing the patient, clean, soft, white rags should be used, instead of handkerchiefs, for wiping away infectious discharges, and thrown at once in the fire.

THE PATIENT.

A vessel containing chloride of lime or other convenient disinfectant should be constantly kept within reach for the patient to spit in. His discharges of feces and urine should be received

in a vessel containing milk of lime or a carbolic solution, and thoroughly mixed.

Frequent warm bathing is agreeable to the patient, hastens desquamation and controls in a measure the diffusion of the products of desquamation.

His body should be anointed after each bath with some emollient antiseptic oil, for a like effect.

Finally doctors and nurses should be well informed on the usual precautions necessary to observe in the care of infectious diseases. To that end, they should study one or more of the following publications:

The Lamb Prize Essay on "Disinfection and Individual Prophylaxis against Infectious Diseases," published by the American Public Health Association. Copies will be supplied on application to this office. Other authorities are Abbott, on "The Hygiene of Transmissible Diseases"; Nuttall on "Hygienic Measures in Relation to Infectious Diseases"; Bracken on "Disinfection and Disinfectants."

NOTE.

There are a large number of proprietary "disinfectants," so-called, in the market. Most of them are simply deodorizers or antiseptics, of perhaps some value to stop a stink, but are entirely untrustworthy for disinfectant purposes, and are always very expensive, compared with the better agents above mentioned.